



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,024	01/09/2006	Daniel Mullette	2003P87058WOUS	7154
28524	7590	02/03/2009		
SIEMENS CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 170 WOOD AVENUE SOUTH ISELIN, NJ 08830				
EXAMINER				
GREENE, JASON M				
ART UNIT		PAPER NUMBER		
1797				
MAIL DATE		DELIVERY MODE		
02/03/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,024

Applicant(s)

MULLETTE ET AL.

Examiner

Jason M. Greene

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-12, 64-76 and 78-105 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12, 64-68, 75, 76 and 78-102 is/are allowed.
- 6) ☒ Claim(s) 1, 6-11 and 69-71 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 72-74 and 103-105 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-846)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Response to Arguments

1. Applicant's arguments, see page 18, line 17 to page 19, line 24, filed 4 November 2008, with respect to the 35 USC 102 rejections of claims 1,2 and 6-11 as being anticipated by Shorr or Serikov have been fully considered and are persuasive. The 35 USC 102 rejections of claims 1, 2 and 6-11 as being anticipated by Shorr or Serikov have been withdrawn.
2. In response to applicant's argument regarding claims 1, 4, 10 and 11 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the PVME being present as a coating **and** as a dispersion) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Thus the rejection of claims 1, 4, 10 and 11 as being anticipated by Gregor is maintained since the reference teaches the PVME being present as a dispersion.

3. With regard to claims 69-71, Applicants' arguments regarding the Kim et al. reference have been considered, but they are not persuasive. Kim et al. teaches incorporating PVME into the membrane to impart hydrophilic properties to the membrane. While it may be true that the Kim et al. membrane exhibits hydrophilic and hydrophobic properties at different temperatures, the PVME still causes the membrane to be more hydrophilic than it would otherwise be. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the PVME being used a negative thermo-response polymer) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
4. Applicant's arguments, see page 21, line 1 to page 23, line 23, filed 4 November 2008, with respect to 35 USC 102 and 103 rejections of claims 75, 76, 78, 80 and 83-87 have been fully considered and are persuasive. The 35 USC 102 and 103 rejections of claims 75, 76, 78, 80 and 83-87 have been withdrawn since the allowable subject matter of claim 77 has been incorporated into claim 75.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 4, 7 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Gregor (US 4,033,817).

Gregor discloses a polymeric ultrafiltration membrane incorporating PVME (as a copolymer with maleic anhydride along with Kynar), wherein the PVME is incorporated in the membrane as a homogeneous dispersion throughout the membrane, wherein the membrane is free from macrovoids and includes cross linked PVME, and wherein the membrane is inherently hydrophilic in col. 7, lines 20-68 and col. 9, lines 15-46.

7. Claims 69-71 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (US 6,699,611 B2).

Kim et al. discloses a method of hydrophilising a membrane prepared from a polymeric material comprising contacting the polymeric material with a compatible at least partially water soluble polymeric hydrophilising agent containing vinylmethyl ether monomers (PVME) in Figs. 1-5, col. 2, line 23 to col. 3, line 8 and col. 4, line 65 to col. 5, line 66.

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gregor (US 4,033,817) in view of Serikov (US 6,602,391 B2).

Gregor does not teach the membrane comprising one of the recited polymers.

Serikov discloses a polymeric ultra or microfiltration membrane incorporating PVME, wherein the PVME is present as a coating on the membrane, wherein the polymeric membrane comprises polypropylene, PVDF or ethylene chlorotrifluoroethylene (the support, see col. 11, lines 20-40), wherein the membrane is hydrophilic and has an asymmetric (layered) structure, wherein the membrane is substantially free of macrovoids and has a reduced pore size as a result of the addition of PVME, and wherein the membrane comprises cross linked PVME in col. 10, line 5 to col. 11, line 46.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the polymers of Serikov into the membrane of Gregor in that such are alternate polymers in the art for forming ultra or microfiltration membranes.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gregor (US 4,033,817).

Gregor does not teach the membrane being asymmetrical, but one of ordinary skill in the art at the time the invention was made would have recognized that a customary porous support layer to be incorporated to provide improved mechanical strength is desired.

Allowable Subject Matter

11. Claims 12, 64-68, 75 and 78-102 are allowed.
12. Claims 2, 3, 72-74 and 103-105 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
13. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claims 2 and 3, the prior art made of record does not teach or fairly suggest the membrane of claim 1 wherein the PVME is present as a coating on the membrane and is incorporated in the membrane as a homogeneous dispersion throughout the membrane or wherein the PVME is incorporated as a heterogeneous dispersion throughout the membrane.

With regard to claims 72-74, the prior art made of record does not teach or fairly suggest the method of claim 69 where the polymeric hydrophilising agent is a copolymer containing vinylmethyl ether monomer and at least one other co-monomer.

With regard to claim 103, the prior art made of record does not teach or fairly suggest the method of claim 69 wherein PVME is incorporated in the membrane dope and formed into a membrane, and wherein the membrane is further treated with PVME.

With regard to claims 104 and 105, the prior art made of record does not teach or fairly suggest the method of claim 69 wherein the membrane is treated to cross link the PVME.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (571) 272-1157. The examiner can normally be reached on Monday - Friday (9:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason M. Greene
Primary Examiner
Art Unit 1797

/Jason M. Greene/
2/1/09

jmg
February 1, 2009